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Milliman et al.

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[54] NUCLEIC ACID PROBES TO  
STREPTOCOCCUS PYOGENES

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[58] Field of Search 435/6; 536/27, 24.32;  
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[56] References Cited

U.S. PATENT DOCUMENTS

4,784,948 11/1988 Scott et al. 435/68

FOREIGN PATENT DOCUMENTS

0133671 of 1984 European Pat. Off.  
0277237 7/1987 European Pat. Off.

0232085 8/1987 European Pat. Off.  
0250662 1/1988 European Pat. Off.

OTHER PUBLICATIONS

R. Kilpper-Bälz and K. H. Schleifer FEMS Microbiology Letters 24, 355-364 (1984).

W. Ludwig et al. J. Gen. Microbiol. 131, 543-551 (1985).

R. B. Wallace and C. G. Miyada Methods in Enzymology 152, 432-442 (1987).

ATCC Catalogue of Bacteria and Bacteriophages (17th Ed.), pp. 207-212 (1989).

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[57] ABSTRACT

Probes for the detection of *Streptococcus pyogenes*, which are capable of distinguishing it from related species, are provided. Methods of using these probes in hybridization assays, and hybrids formed between the probes and complementary nucleic acids, are disclosed.

16 Claims, No Drawings